

## PREDICTION AND ASSESSMENT OF ABLATION OF CARDIAC TISSUE

### CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of U.S. Patent Application No. 10/277,079, filed October 21, 2002, <sup>now US Patent No. 7,001,383</sup> which is assigned to the assignee of the present patent application and whose disclosure is incorporated herein by reference.

### FIELD OF THE INVENTION

The present invention relates generally to minimally-invasive treatment of organs inside the body, and specifically to methods and devices for prediction and assessment of ablation treatments applied to cardiac tissue.

### BACKGROUND OF THE INVENTION

Radio frequency (RF) ablation is widely used for treating cardiac arrhythmias. RF ablation is commonly carried out by inserting a catheter through the patient's vascular system into the heart, and bringing the distal tip of the catheter into contact with the cardiac tissue at the site that is to be ablated. RF electrical current is then conducted through wires in the catheter to one or more electrodes at the tip of the catheter, which apply the RF energy to the myocardium. The RF energy is absorbed in the tissue, heating it to the point (typically about 50°C) at which it permanently loses its electrical excitability. When this sort of procedure is successful, it creates non-conducting lesions in the cardiac tissue, which disrupt the abnormal electrical pathway causing the arrhythmia.